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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/615,182

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J. Peter Hansen

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EXAMINER

WOO, ISAAC M

ART UNIT

PAPER NUMBER

2172

DATE MAILED: 01/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/615,182

Applicant(s)

HANSEN ET AL.

Examiner

Isaac M Woo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to Applicant's reconsiderations on November 01, 2002 have been considered but they are not persuasive.

2. The pending claims are 1-23.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchanan (U.S. Patent No. 5,758,355).

With respect to claim 1, Buchanan discloses the method for dynamically synchronizing (#1, #2 and # 3, FIG. 1 and col. 1, lines 11-25) a duplicated database stored on a server (10, host, FIG. 1) and a client computer (12, 14 and 16, FIG.1), wherein the client computer database comprises a last server access time and a

plurality of data objects and the server computer database comprises a creation time and a plurality of data objects (time stamp for synchronization), see (col. 2, lines 17-60; col. 6, lines 8-63 and col. 4, lines 18-30);

downloading the server computer database to the client computer, if the client computer database last server access time (last time synchronization) indicates a time that is earlier than a time indicated by the creation time (last time update) of the server computer database (col. 6, lines 13-30);

receiving a command for determining a database configuration, see (col. 11, lines 50-67 to col. col. 12, lines 1-26);

deleting the server computer database if the server computer contains a database and if the received command dictates that the server computer database be deleted, see (col. 11, lines 50-67 to col. col. 12, lines 1-26);

copying a client computer database to the server computer, if the received command dictates that the client computer database be copied to the server computer, see (col. 4, lines 18-30).

Buchanan does not explicitly disclose the selectively downloading data objects stored in the server computer database to the client computer database, if the client computer database last server access time indicates a time that is not earlier than a time indicated by the creation time of the server computer database; However, Buchanan teaches that selectively downloading ("updates and inserts to distribution point determines when the relevant records were last modified", col. 12, lines 21-36) based upon only modified or updated information. And Buchanan also teaches the client

last access time (last synchronization time) determination to server database from the statement that “ If a time stamp is more recent that the last synchronization event (last server access time)....”. Therefore, it would have been obvious a person having ordinary skill in the art to have the system of Buchanan include the step of selectively downloading data objects stored in the server computer database to the client computer database, if the client computer database last server access time indicates a time that is not earlier than a time indicated by the creation time of the server computer database. Because selectively downloading data objects from server database to client database can save a lot of network transaction traffics that happens downloading unnecessary information from server. Thus, it would be beneficial to download only updated information (selectively downloading) from server.

With respect to claim 2, Buchanan discloses the updating the last server access time stored in the client computer database, wherein the updated last server access time corresponds to a clock time maintained by the server computer, see (col. 6, 13-67 to col. 7, lines 1-33).

With respect to claim 3, Buchanan discloses the transmitting, from the client computer to the server computer, the last server access time stored on the client computer database, see (col. 6, lines 64-67 to col. 7, lines 1-33).

Claim 4 is rejected on grounds corresponding to the reasons given above claimed in claim 1.

With respect to claim 5, Buchanan discloses the determining if the client computer database last server access time is within a predetermined period of time from a clock time maintained by the server computer, see (col. 5, lines 60-67 to col. 6, lines 1-30); and

downloading the server computer database to the client computer, if the client computer database last server access time is not within a predetermined period of time from a clock time maintained by the server computer, see (col. 6, lines 13-63).

With respect claims 6 and 7, Buchanan discloses the limitation of computer-readable medium containing computer-readable instructions which, when executed by a computer, perform the method of any one of Claims 1-5 for claim 6 and the limitation of computer-controlled apparatus for performing the method of any one of Claims 1-5 for claim 7 above claimed in 1-5. Thus, claims 6 and 7 are rejected for the reason set forth above claimed in claims 1-5.

With respect to claim 8, Buchanan discloses the method for dynamically synchronizing (#1, #2 and # 3, FIG. 1 and col. 1, lines 11-25) a duplicated database stored on a server (10, host, FIG. 1) and a client computer (12, 14 and 16, FIG.1), wherein the client computer database comprises a last server access time and a

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plurality of data objects and the server computer database comprises a creation time and a plurality of data objects (time stamp for synchronization), see (col. 2, lines 17-60; col. 6, lines 8-63 and col. 4, lines 18-30);

downloading the server computer database to the client computer, if the client computer database last server access time (last time synchronization) indicates a time that is earlier than a time indicated by the creation time (last time update) of the server computer database (col. 6, lines 13-30).

Buchanan does not explicitly disclose the selectively downloading data objects stored in the server computer database to the client computer database, if the client computer database last server access time indicates a time that is not earlier than a time indicated by the creation time of the server computer database; However, Buchanan teaches that selectively downloading ("updates and inserts to distribution point determines when the relevant records were last modified", col. 12, lines 21-36) based upon only modified or updated information. And Buchanan also teaches the client last access time (last synchronization time) determination to server database from the statement that " If a time stamp is more recent than the last synchronization event (last server access time)...". Therefore, it would have been obvious a person having ordinary skill in the art to have the system of Buchanan include the step of selectively downloading data objects stored in the server computer database to the client computer database, if the client computer database last server access time indicates a time that is not earlier than a time indicated by the creation time of the server computer database. Because selectively downloading data objects from server database to client database

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can save a lot of network transaction traffics that happens downloading unnecessary information from server. Thus, it would be beneficial to download only updated information (selectively downloading) from server.

With respect to claim 9, Buchanan discloses the updating the last server access time stored in the client computer database, wherein the updated last server access time corresponds to a clock time maintained by the server computer, see (col. 6, 13-67 to col. 7, lines 1-33).

With respect to claim 10, Buchanan discloses the transmitting, from the client computer to the server computer, the last server access time stored on the client computer database, see (col. 6, lines 64-67 to col. 7, lines 1-33).

With respect to claim 11, the claim 11 is rejected on grounds corresponding to the reasons given above claimed in claim 8.

With respect to claim 12, Buchanan discloses the determining if the client computer database last server access time is within a predetermined period of time from a clock time maintained by the server computer, see (col. 5, lines 60-67 to col. 6, lines 1-30); and

downloading the server computer database to the client computer, if the client computer database last server access time is not within a predetermined period of time from a clock time maintained by the server computer, see (col. 6, lines 13-63).

With respect to claim 13, although Buchanan dose not explicitly disclose that the predetermined period of time is ninety days, it is merely design choice to set up predetermined period of time. Setting up the period of time for interval of access time is up to the system administrator's plan.

With respect claims 14 and 15, Buchanan discloses the limitation of computer-readable medium containing computer-readable instructions which, when executed by a computer, perform the method of any one of Claims 8-13 for claim 14 and the limitation of computer-controlled apparatus for performing the method of any one of Claims 8-13 for claim 15 above claimed in 8-13. Thus, claims 14 and 15 are rejected for the reason set forth above claimed in claims 8-13.

With respect to claim 16, Buchanan discloses method for initializing a database system having one client computer and a server computer,

receiving a command for determining a database configuration, see (col. 11, lines 42-67);

deleting the server computer database if the server computer contains a database and if the received command dictates that the server computer database be

deleted; and copying a client computer database to the server computer, if the received command dictates that the client computer database be copied to the server computer, see (col. 11, lines 40-67 to col. 12, lines 1-52).

Buchanan does not explicitly disclose that the determining if the server computer contains a database. Disclosed system is the synchronization of server database with client database. Therefore, it would have been obvious and well known that the client determines if the server computer contains a database.

Claims 17 and 18 are rejected for the reasons set forth above in claimed in claim 16.

With respect to claim 19, Buchanan discloses method for dynamically synchronizing a duplicated database stored on a server and a client computer, wherein the databases each comprise a last server access time and a plurality of data objects, receiving, at the client computer, a synchronization data from the server computer, see (col. 5, lines 30-67 to col. 6, lines 1-30);

updating the entire client computer database with the server computer database if the synchronization data includes the server computer database, see (col. 6, lines 13-43);

Buchanan does not explicitly disclose the updating selective client computer database data objects, if the synchronization data only includes corresponding selective server data objects. However, Buchanan teaches that from statement "to determine

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when the relevant records were last modified.... and distribution tables (for synchronization) are altered... server database change that may require extract during the synchronization of a given client" (col. 12, lines 1-52) which explains that only updated or modified server database objects are downloaded to client. Therefore, it would have been obvious a person having ordinary skill in the art to have the system of Buchanan include the updating selective client computer database data objects, if the synchronization data only includes corresponding selective server data objects. Selective downloading increases the performance of database synchronization because selective downloading decreases the data transaction traffics that create much unnecessary traffic in network environment between server and client.

With respect to claim 20, Buchanan discloses the receiving an updated last server access time from the server computer, wherein the updated last server access time corresponds to a clock time maintained by the server computer, see (col. 6, 13-67 to col. 7, lines 1-33).

With respect to claim 21, Buchanan discloses the transmitting, from the client computer to the server computer, the last access time stored on the client computer database, see (col. 6, lines 64-67 to col. 7, lines 1-33).

Claims 22 and 23 are rejected on grounds corresponding to the reasons given above claimed in claims 19-21.

Response to Amendment

In response to Applicant's remark filed on November 01, 2002, the following factual arguments are noted:

a. Buchanan does not disclose or suggestion to distinguish between two different types of download actions (downloading server computer database to the client computer, downloading whole database, and selectively downloading data objects stored in the server computer) based on an examination time at which a server database is created.

b. Buchanan does not disclose or suggestion that deleting the server computer database if the server computer contains a database and if the received command dictates that the server computer database be deleted.

copying a client computer database to the server computer, if the received command dictates that the client computer database be copied to the server computer.

c. Buchanan does not disclose or suggestion that downloading the server computer database to the client computer, if the client computer database last server access time is not within a predetermined period of time from a clock time maintained by the server computer.

d. Buchanan does not disclose or suggestion that updating the client computer database and selectively updating the client co computer data objects.

In response to a, Buchanan discloses that prior approaches to data synchronization often accessed often a transaction log file, maintained for database recovery purposes, to ascertain what changes were made to a server database since the last synchronization. An objective of a server synchronization for any client computer typically is to extract from the server database all records in the user subset that have been modified since that remote computer last performed a synchronization which teaches that if changes made (new data objects (records) are created), the client computer extracts all records (download whole server computer database), see (col. 1, lines 5-51). Thus, Buchanan implies that conventional method for data synchronization transfers whole data, which is shortcoming of conventional method that creates heavy traffics on network. And Buchanan discloses the method to overcome the conventional problems with transferring only updated data objects to the client computer (selectively downloading) that distribution table identifies updated records (data objects), (col. 3, lines 29-52) and thus, only updated records based on time stamp that indicates creation time of updated records from whole database transfers (selectively download) to the client computer, see (col. 4, lines 41-67 to col. 5-7).

In response to b, Buchanan discloses that the client computers also may periodically upload (copy the client database to the server computer) information to the shared database. This bidirectional exchange of information between the server and

client databases is referred to as database synchronization, see (col. 1, lines 12-25, col. 4, lines 18-30). And Buchanan discloses that records deletions (col. 18, lines 60-67 to col. 19, lines 1-57) and database records deletion is well known and basic built in commands in any database related application.

In response to c, the claim is about predetermined time (expiration time), the expiration time is well known and basic concepts to apply any type of computer-related system (such as, document expiration, logging expiration, run time expiration, etc).

In response to d, the concept is based on above in a, if the client computer downloads whole the server database, then updating the client database. And if the client computer selectively downloads the server data objects, then selective updating the client computer database objects.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac M Woo whose telephone number is (703) 305-0081. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y Vu can be reached on (703) 305-4393. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 308-6606 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

IMW
January 8, 2003


JEAN M. CORRIELUS
PRIMARY EXAMINER